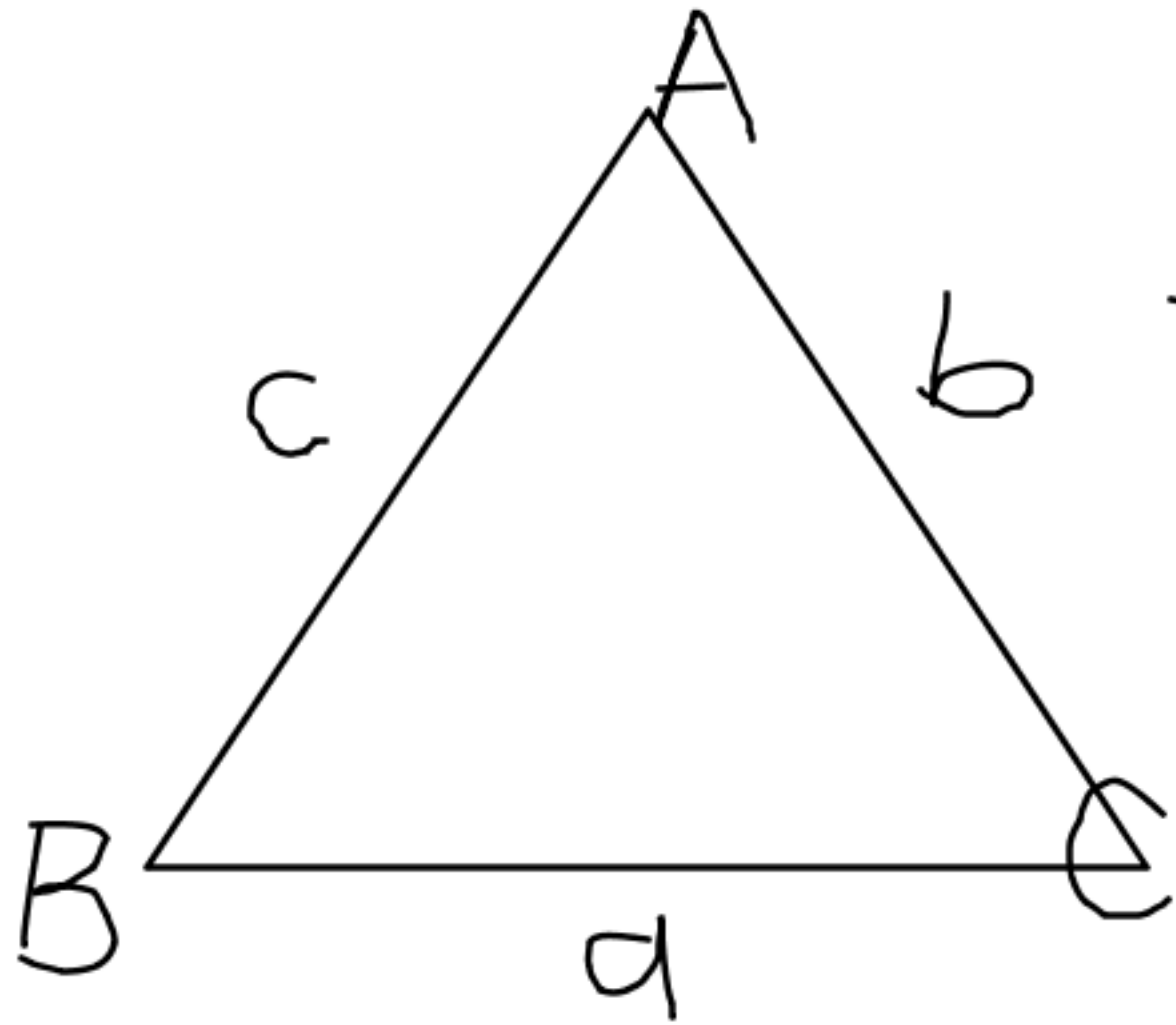


Law of Sines

Sept 21



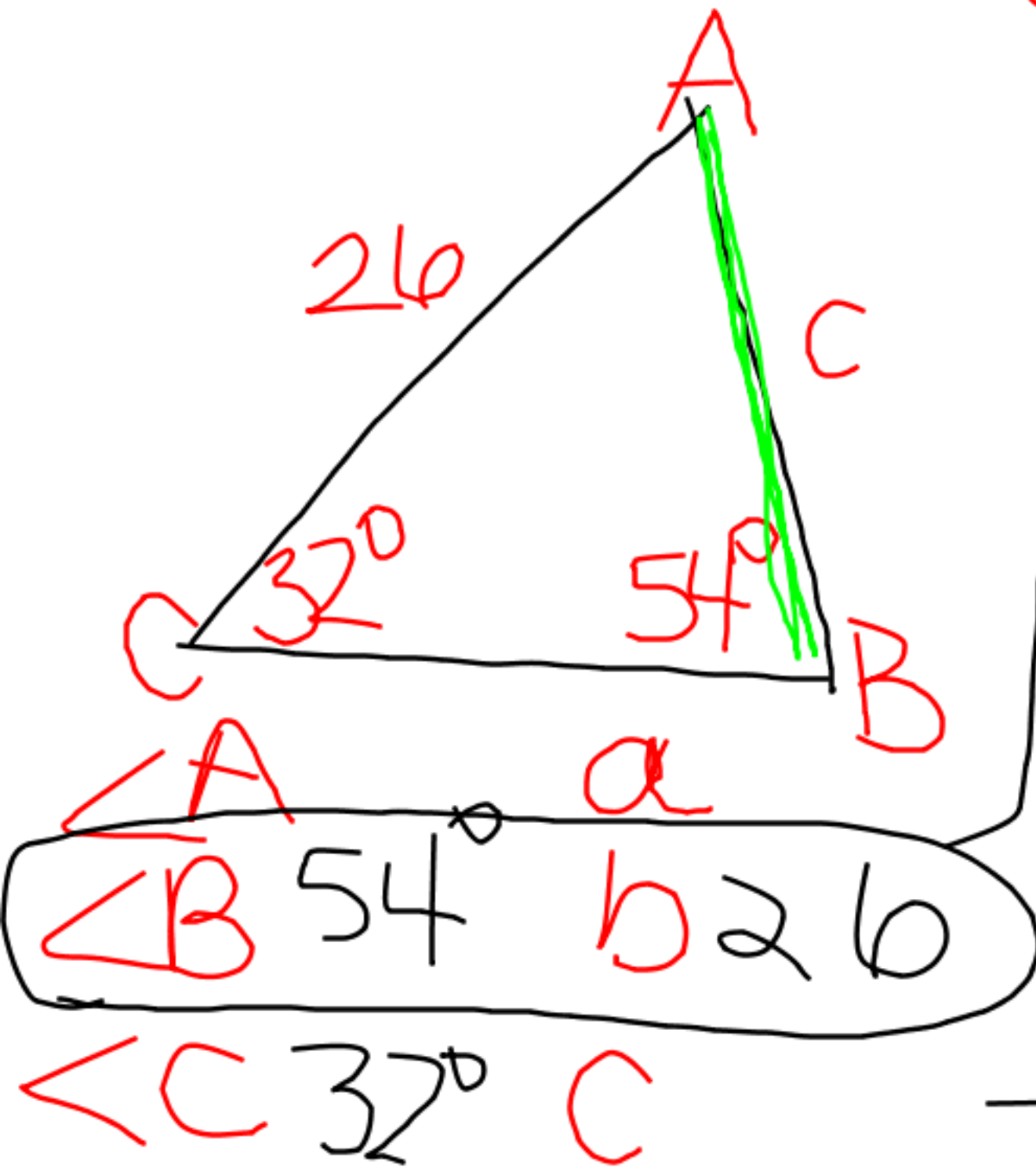
$$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$$

$$\frac{\sin A}{a} = \frac{\sin B}{b} = \frac{\sin C}{c}$$

OR

Uppercase Letters = angles
Lowercase Letters = sides

2) Find $AB = c$ ^{or} ~~if~~ _c you must have corresponding sides and angles and only ONE unknown.



Write the unknown on the TOP RIGHT

$$\frac{b}{\sin B} = \frac{c}{\sin C}$$

$$\frac{26}{\sin 54} = \frac{\textcircled{c}}{\sin 32}$$

$$\textcircled{c = 17}$$

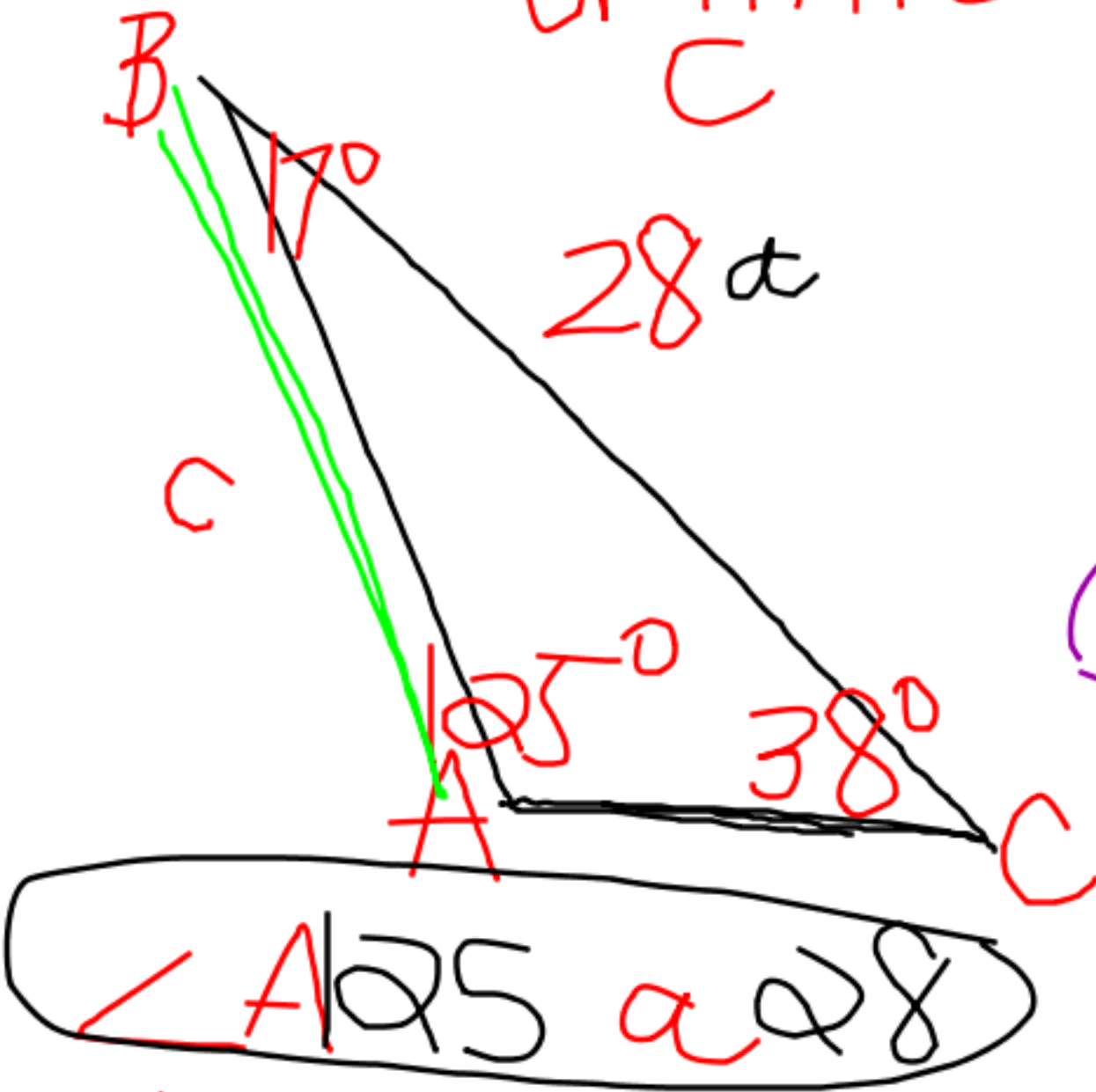
~~$\sin 32^\circ$~~

~~$\times \sin 32$~~

3) Find AB
or little C

$$\angle A = 180 - 17 - 38$$

$$\angle A = 125^\circ$$



$\angle B 17^\circ$ b
 $\angle C 38^\circ$ c

③ $\frac{\sin 28}{\sin 38}$

$$\frac{a}{\sin A} = \frac{c}{\sin C}$$

$$\times \frac{28}{\sin 125} = \frac{c}{\sin 38}$$

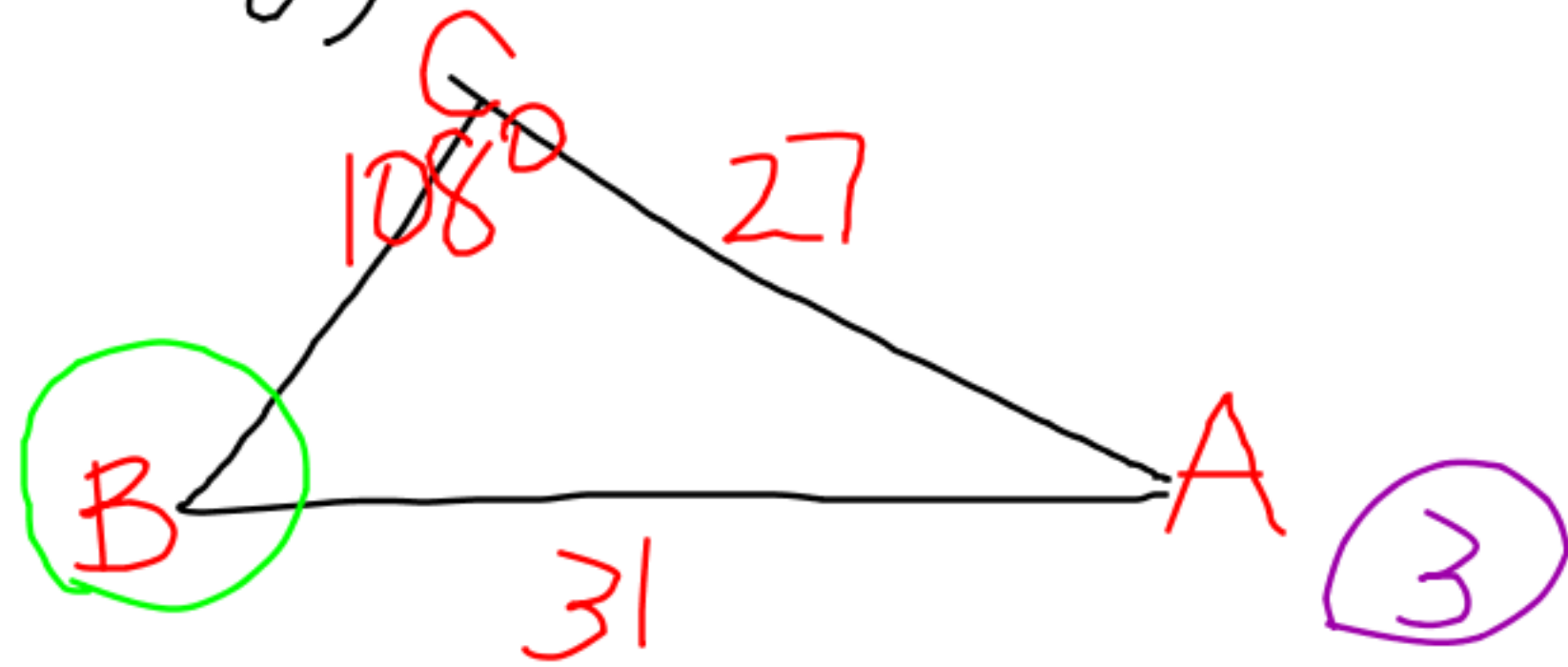
① $\times \frac{28}{\sin 125}$

② $\frac{c}{\sin 38}$

$$c = 21.04$$

$$c = 21$$

8) Find $\angle B$



$\angle A$ a
 $\angle B$ 56 b 27
 $\angle C$ 108° c 31

*NO decimals
with angles

$$\frac{\sin C}{c} = \frac{\sin B}{b}$$

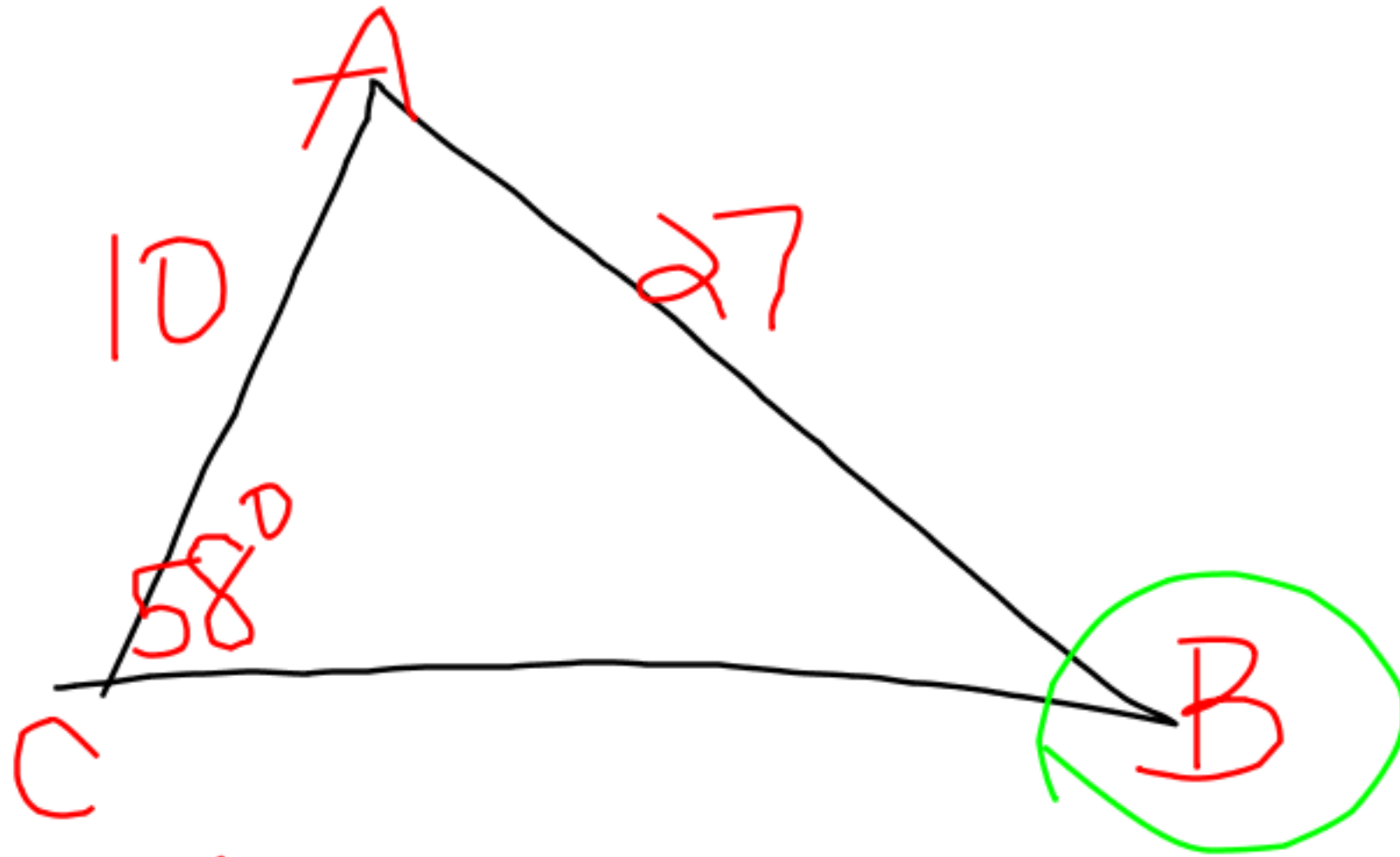
$$\frac{\sin 108^\circ}{31} = \frac{\sin B}{27}$$

$$\sin B = 0.8283$$

$$\angle B = 55.924$$

$$\angle B = 56^\circ$$

9) Find $\angle B$



$\angle A$	a
$\angle B$	b
$\angle C$	c

_____ = _____